

*PS concurred*

25. (New) The method of treating a surface deficiency of Claim 20, wherein said surfactant deficiency is respiratory distress syndrome.

26. (New) The method of treating a surface deficiency of Claim 23, wherein said surfactant deficiency is respiratory distress syndrome.

27. (New) The method of treating a surface deficiency of Claim 24, wherein said surfactant deficiency is respiratory distress syndrome.

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REMARKS

Claims 1-13 and 17-27 are active in the present application. Claims 1-13 were amended to remove multiple dependencies. Claims 14-16 were canceled. New Claims 17-27 replace canceled Claims 14-17. Support for new claims is found in the original claims and in the specification on page 1, lines 5-12 and the examples. No new matter is believed to have been added. An action on the merits and allowance of claims is solicited.

Respectfully submitted,  
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IN THE CLAIMS

--1. (Amended) A SP-C analog [SP-C analogues] having general formula (I), according to one-letter amino acid code:



wherein:

X is an amino acid selected from the group consisting of I, L, Nle (norleucine);

B is an amino acid selected from the group consisting of K, W, F, Y, Ornithine;

Z is S and can be optionally linked via ester or thio-ester bonds with acyl group containing 12-22 carbon atoms;

a is an integer from 1 to 19;

b is an integer from 1 to 19;

c is an integer from 1 to 21;

d is an integer from 0 to 20;

e is 0 or 1;

f is 0 or 1;

n is 0 or 1;

m is 0 or 1,

with the following conditions:

$n + m > 0$ ;

$f \geq e$ ;

$(X_aB)(X_bB)_n(X_cB)_mX_d$  is a sequence having a maximum of 22 amino acids[, preferably from 10 to 22 amino acids].

7. (Amended) A SP-C analog [SP-C analogues] according to [claims 1-6] Claim 1, in which Ser residues are acylated[ preferably with palmitoyl groups].

8. (Amended) A SP-C analog [SP-C analogues] according to [claims 1-7] Claim 1, in which B is Lysine or Phenylalanine and X is Leucine, Isoleucine or Norleucine.

10. (Amended) A synthetic surfactant comprising at least one SP-C analogue [of formula (I)] as claimed in Claim 1 in admixture with lipids and phospholipids.

12. (Amended) A synthetic surfactant according to [claims 10-11] Claim 10, further comprising SP-B or an active derivative thereof or a polymyxin.

13. (Amended) A synthetic surfactant according to [claims 10-12] Claim 10, in form of solution, dispersion, suspension, dry powder.--

Claims 14-16 (Canceled).

Claims 17-27 (New).

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IN THE SPECIFICATION

Page 5, lines 23-25, please replace the paragraph with the following paragraph:

--As follows, according to a first aspect, the invention provides SP-C analogues having the following general formula (I) SEQ ID NO:1, using the one-letter amino acid code:--

Page 6, lines 21-26, please replace the paragraph with the following paragraph:

--Preferred peptides of Formula (I) have the following sequences:

(Ia) FGIPSSPVHLKRX<sub>4</sub>BX<sub>4</sub>BX<sub>4</sub>BXGALLMGL (SEQ ID NO:2)

(Ib) FGIPSSPVHLKRX<sub>5</sub>BX<sub>5</sub>BX<sub>4</sub>GALLMGL (SEQ ID NO:3)

(Ic) FGIPSSPVHLKRX<sub>4</sub>BX<sub>11</sub>GALLMGL (SEQ ID NO:4)

(Id) FGIPSSPVHLKRX<sub>8</sub>BX<sub>7</sub>GALLMGL (SEQ ID NO:5)

(Ie) FGIPSSPVHLKRX<sub>11</sub>BX<sub>4</sub>GALLMGL (SEQ ID NO:6)--

Page 7, lines 3-8, please replace the paragraph with the following paragraph:

--FGIPSSPVHLKRL~~L~~LILKLLLLKILLKLGALLMGL [SP-C (LKS)] (SEQ ID NO:7)

FGIPSSPVHLKRL~~L~~LILKLLL~~L~~IKLL~~L~~LIGALLMGL [SP-C (LKS)<sub>1</sub>] (SEQ ID NO:8)

FGIPSSPVHLKRL~~L~~LILKLLL~~L~~LILLLGALLMGL [SP-C (LKS)<sub>2</sub>] (SEQ ID NO:9)

FGIPSSPVHLKRLILLLLLLKLILLILGALLMGL [SP-C (LKS)<sub>3</sub>] (SEQ ID NO:10)

FGIPSSPVHLKRLILLLLLLIKLLILGALLMGL [SP-C (LKS)<sub>4</sub>] (SEQ ID NO:11)

FGIPSSPVHLKRLILFLLLLFILLFLGALLMGL [SP-C (LFS)] (SEQ ID NO:12)

Page 21, lines 27, to page 27, line 6, please replace the paragraph with the following paragraph:

--The sequence of human SP-C (SEQ ID NO: 13) is taken from Johansson, J., et al. (1988) FEBS Lett. **232**, 61-64 and that of SP-C(Leu) (SEQ ID NO: 14) from Nilsson, G., et al. (1999) Eur. J. Biochem, 255, 116-124). SP-C(LKS) (SEQ ID NO: 7) is based on the primary structure of SP-C but all Val residues at the positions 16-28 with the exception of position 17 are replaced with Leu residues, Lys residues have been introduced at positions 17,22, and 27, and the palmitoylated Cys at positions 5 and 6 are replaced with Ser.--

#### IN THE CLAIMS

--1. (Twice Amended) A SP-C analog having general formula (I) (SEQ ID NO:1), according to one-letter amino acid code:



wherein:

X is an amino acid selected from the group consisting of I, L, Nle (norleucine);

B is an amino acid selected from the group consisting of K, W, F, Y, Ornithine;

Z is S and can be optionally linked via ester or thio-ester bonds with acyl group containing 12-22 carbon atoms;

a is an integer from 1 to 19;

b is an integer from 1 to 19;

c is an integer from 1 to 21;

d is an integer from 0 to 20;

e is 0 or 1;

f is 0 or 1;

n is 0 or 1;

m is 0 or 1,

with the following conditions:

$n + m > 0$ ;

$f \geq e$ ;

$(X_a B)(X_b B)_n(X_c B)_m X_d$  is a sequence having a maximum of 22 amino acids.

2. (Amended) SP-C analogues according to claim 1, having formula (Ia) (SEQ ID

NO:2)

(Ia) FGIPSSPVHLKRX<sub>4</sub>BX<sub>4</sub>BX<sub>4</sub>BXGALLMGL

3. (Amended) SP-C analogues according to claim 1, having formula (Ib) (SEQ ID

NO:3)

(Ib) FGIPSSPVHLKRX<sub>5</sub>BX<sub>5</sub>BX<sub>4</sub>GALLMGL

4. (Amended) SP-C analogues according to claim 1, having formula (Ic) (SEQ ID

NO:4)

(Ic) FGIPSSPVHLKRX<sub>4</sub>BX<sub>11</sub>GALLMGL

5. (Amended) SP-C analogues according to claim 1, having formula (Id) (SEQ ID

NO:5

(Id) FGIPSSPVHLKRX<sub>8</sub>BX<sub>7</sub>GALLMGL

6. (Amended) SP-C analogues according to claim 1, having formula (Ie) (SEQ ID

NO:6

(Ie) FGIPSSPVHLKRX<sub>11</sub>BX<sub>4</sub>GALLMGL

9. (Amended) SP-C analogues according to claim 8, selected from the group  
consisting of:

SP-C (LKS) FGIPSSPVHLKRLILKLLLLKILLKLGALLMGL (SEQ ID NO:7)

SP-C (LKS)<sub>1</sub> FGIPSSPVHLKRLILLLKLLLKLLIKLLILGALLMGL (SEQ ID NO:8)

SP-C (LKS)<sub>2</sub> FGIPSSPVHLKRLILKLLLLLILLKLGALLMGL (SEQ ID NO:9)

SP-C (LKS)<sub>3</sub> FGIPSSPVHLKRLILLLLLKLILLKLGALLMGL (SEQ ID NO:10)

SP-C (LKS)<sub>4</sub> FGIPSSPVHLKRLILLLLLLKLLIKLLILGALLMGL (SEQ ID NO:11)

SP-C (LFS) FGIPSSPVHLKRLILFLLLLFILLFLGALLMGL (SEQ ID NO:12)--